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| EXAMINER | |
|---|---|
| LESPERANCE, JEAN E | |
| ART UNIT | PAPER NUMBER |
| 2629 | |

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE |
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/830,192 | AUTIO ET AL. | |
| | Examiner | Art Unit | |
| | Jean E. Lesperance | 2629 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *21 April 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *21 April 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *4/21/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

1. The application filed April 21, 2004 is presented for examination and claims 1-26 are pending.

### *Specification*

2. The disclosure is objected to because of the following informalities: at the end of paragraph 00028, line 9, display screen 14 is supposed to be display screen 12; in paragraph 00031, line 7, 46a and 46b are supposed to be buttons not graphics according to the drawings; in paragraph 00038, line 5, there is a typo "tot eh" before present; at paragraph 00040, line 6, the phrase "the present invention offers more a more efficient" where the first more has to be eliminated. Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-11, 13-21, and 23-26 are rejected under 35 U.S.C. 102(b) as being unpatentable over US Patent No. 5,404,458 by Zetts.

Regarding claim 1, Zetts teaches an electronic device for displaying a graphical image at a touch sensitive user interface using a displaying software program (touch workpad, Fig.1 (10)), and for storing a separate computer command apart from the displaying software program (application program, Fig.2B (82)), the improvement comprising a computer program embodied in a computer readable medium (RAM, Fig.2B (80)) comprising instructions to cause a computer to:

receive an input at a portion of the touch sensitive user interface that is not recognized as active by the display program (The touch sensor Fig.1 (16) generates a series of interrupts to a device driver for the touch workpad at 110 which passes a set of input signals to the AUI corresponding to the set of points in the circle at 112 (column 7, lines 44-47)) wherein the touch sensor 16 is not active because it is not an icon. (See Fig.4);

compare said received input to a stored command character that is associated with the separate computer command (the stroke is sent to a character recognition unit or gesture recognition unit for processing at 128 (column 7, lines 65-67)) wherein a character recognition unit is included in the Advanced User interface (AUI) which stores defined character so that the received input from the touch sensor Fig.1 (16) can be compared to. (See Fig.4); and

execute the separate computer command only if the received input matches the stored command character (If the input stroke has been recognized by the gesture recognition unit as a circle gesture, the AUI passes the circle gesture signal to the appropriate computer module 132 (column 8, lines 3-6)). (See Fig.4).

Regarding claim 2, Zetts teaches said separate computer command is to display a submenu at the touch sensitive user interface (action bar menu or options, Fig.3 (104)), said submenu comprising a plurality of shortcut links each to a different executable command (wherein the action bar menu or options (104) when touched with a pointing device by the user, a pulldown menu will appear to allow the user to select one of the plurality of available options or shortcut links (column 6, lines 23-27).

Regarding claim 3, Zetts teaches each of said executable commands are commands that operate on said graphical image (work space area Fig.3 (102) wherein all the commands are operated.

Regarding claim 4, Zetts teaches the input comprises a touchdown point (touchdown, Fig.3) and a series of substantially contiguous and continuous input points along said touch sensitive user interface that defines a character input (file command, Fig.3 (108)) wherein all the commands are taking place on the touch overlay Fig.1 (16).

Regarding claim 5, Zetts teaches comparing said received character input to a stored command character comprises comparing a shape and a position of a touchdown point relative to said shape of the received character input to a shape and initial point of said command character (the stroke is sent to a character recognition unit or gesture recognition unit for processing at 128 (column 7, lines 65-67)), and wherein the character input matches the stored command character when said shapes match and the position of the touchdown point relative to the shape matches said initial point (a computer module within the stylus or finger-based operating system extension (AUI) to differentiate between touch input signals intended to emulate a mouse command,

such as a mouse button down, mouse move, or a mouse button up, and those touch input signals which are to be considered a gesture or character (column 6, lines 49-55)) wherein as shown in Fig.3, the shape is formed by a plurality of points wherein each point has a position.

Regarding claim 6, Zetts teaches comparing said received character input to a stored command character (the stroke is sent to a character recognition unit or gesture recognition unit for processing at 128 (column 7, lines 65-67)) comprises comparing a shape and a direction of substantially contiguous and continuous input points of the received character input to a shape of said command character and a direction of formation associated with said command character, and wherein the character input matches the stored command character when said shapes match and the direction of substantially contiguous and continuous input points matches the direction of formation associated with the command character (a computer module within the stylus or finger-based operating system extension (AUI) to differentiate between touch input signals intended to emulate a mouse command, such as a mouse button down, mouse move, or a mouse button up, and those touch input signals which are to be considered a gesture or character (column 6, lines 49-55)) wherein as shown in Fig.3, the shape is formed by a plurality of points wherein each point has a position.

Regarding claim 7, Zetts teaches in response to receiving the touchdown point at a portion of the touch sensitive user interface that is not recognized as active by the display program (the touchdown to the continuous points 12 (Fig.3)) which are command received by the touch overlay from a user), the improvement further

comprises computer instructions for rendering the entire touch sensitive user interface as inactive to the display program until the input is terminated (the command from point 12 to point 35 ceased where a timeout was created. Since the user interface was inactive, an application command, such as a "file" command 108, could be activated by recognizing the series of points as a "file" command generated by a mouse-pointing device and sent to the application program (column 6, lines 42-48)).

Regarding claim 8, Zetts teaches the input is terminated at least when the series of contiguous and continuous input points ceases to be continuous for a minimum threshold of time (if the user stops moving the pointing device at a desired position for 200 milliseconds, a mouse command, such as a mouse down button command, at the desired position is communicated to the application program (column 7, lines 2-6)).

Regarding claim 9, Zetts teaches the input is terminated at least when the series of contiguous and continuous input points ceases to move among distinct contiguous portions of the touch sensitive user interface for a minimum threshold of time (if the user stops moving the pointing device at a desired position for 200 milliseconds, a mouse command, such as a mouse down button command, at the desired position is communicated to the application program (column 7, lines 2-6)).

Regarding claim 10, Zetts teaches the input is terminated at least when the series of contiguous and continuous input points match the stored command character (If, however, the pointing device is not moved within a period that exceeds the time delay, a mouse command is recognized and generated at 130 9column 7, lines 61-63)).

Regarding claim 11, Zetts teaches the separate computer command is a

computer command executed by a second mouse button when said displaying software program is embodied to receive an input from a mouse having a first and second button (a timeout was created and program execution transferred to mouse emulation mode. Now an application command, such as a "file" command 108, could be activated by recognizing the series of points as a "file" command generated by a mouse-pointing device and sent to the application program (column 6, lines 42-48)) wherein the separate computer command is stored in the AUI (advanced user interface) and wherein (a computer module within the stylus or finger-based operating system extension (AUI) to differentiate between touch input signals intended to emulate a mouse command, such as a mouse button down, mouse move, or a mouse button up, and those touch input signals which are to be considered a gesture or character (column 6, lines 49-55) ad the mouse pointing device inherently has first and second buttons.

Regarding claim 13, Zetts teaches a method to operate a computer through a touch sensitive display interface (touch workpad, Fig.1 (10)) comprising: displaying a computer generated graphical image on a touch sensitive display using a displaying software program (software window, Fig.3 (100)), said displaying software program being responsive to inputs at only a first active portion of the touch sensitive display when said graphical image is displayed (action bar Options, Fig.3 (104), and non-responsive to a second inactive portion of the display (gesture, Fig.3 (106));

receiving an input character at the second inactive portion of said touch sensitive display (The touch sensor 16 generates a series of interrupts to a device driver for the

touch workpad at 110 which passes a set of input signals to the AUI corresponding to the set of points in the circle at 112 (column 7, lines 44-47)) wherein the touch sensor 16 is not active because it is not an icon. (See Fig.4);

comparing said input character to a stored command character that is associated with a separate corresponding computer command (the stroke is sent to a character recognition unit or gesture recognition unit for processing at 128 (column 7, lines 65-67)) wherein a character recognition unit is included in the Advanced User interface (AUI) which stores defined character so that the received input from the touch sensor Fig.1 (16) can be compared to. (See Fig.4); and

executing the separate corresponding computer command if said input character matches said command character (If the input stroke has been recognized by the gesture recognition unit as a circle gesture, the AUI passes the circle gesture signal to the appropriate computer module 132 (column 8, lines 3-6)). (See Fig.4).

Regarding claim 14, Zetts teaches said separate corresponding computer command is to display a submenu at the touch sensitive display (action bar menu or options, Fig.3 (104)), said submenu comprising a plurality of shortcut links each to a different executable command (wherein the action bar menu or options (104) when touched with a pointing device by the user, a pulldown menu will appear to allow the user to select one of the plurality of available options or shortcut links (column 6, lines 23-27).

Regarding claim 15, Zetts teaches each of said executable commands is a command that operates on said computer generated graphical image (work space area

Fig.3 (102) wherein all the commands are operated.

Regarding claim 16, Zetts teaches the input character comprises a touchdown point (touchdown, Fig.3) and a series of substantially contiguous and continuous input points along said touch sensitive user interface (file command, Fig.3 (108)) wherein all the commands are taking place on the touch overlay Fig.1 (16).

Regarding claim 17, Zetts teaches comparing said input character to a stored command character comprises comparing a shape and a position of a touchdown point relative to said shape of the character input to a shape and initial point of said command character (the stroke is sent to a character recognition unit or gesture recognition unit for processing at 128 (column 7, lines 65-67)), and wherein the input character matches the stored command character when said shapes match and the position of the touchdown point relative to the shape matches said initial point (a computer module within the stylus or finger-based operating system extension (AUI) to differentiate between touch input signals intended to emulate a mouse command, such as a mouse button down, mouse move, or a mouse button up, and those touch input signals which are to be considered a gesture or character (column 6, lines 49-55)) wherein as shown in Fig.3, the shape is formed by a plurality of points wherein each point has a position.

Regarding claim 18, Zetts teaches comparing said input character to a stored command character (the stroke is sent to a character recognition unit or gesture recognition unit for processing at 128 (column 7, lines 65-67))comprises comparing a shape and a direction of substantially contiguous and continuous input points of the received character input to a shape of said command character and a direction of

formation associated with said command character, and wherein the input character matches the stored command character when said shapes match and the direction of substantially contiguous and continuous input points matches the direction of formation associated with the command character(a computer module within the stylus or finger-based operating system extension (AUI) to differentiate between touch input signals intended to emulate a mouse command, such as a mouse button down, mouse move, or a mouse button up, and those touch input signals which are to be considered a gesture or character (column 6, lines 49-55)) wherein as shown in Fig.3, the shape is formed by a plurality of points wherein each point has a position.

Regarding claim 19, Zetts teaches in response to receiving the touchdown point at a portion of the touch sensitive user interface that is not recognized as active by the display program (the touchdown to the continuous points 12 (Fig.3)) which are command received by the touch overlay from a user), the improvement further comprises computer instructions for rendering the entire touch sensitive user interface as inactive to the display program until the input character is terminated (the command from point 12 to point 35 ceased where a timeout was created. Since the user interface was inactive, an application command, such as a "file" command 108, could be activated by recognizing the series of points as a "file" command generated by a mouse-pointing device and sent to the application program (column 6, lines 42-48)).

Regarding claim 20, Zetts teaches the separate corresponding computer command is a computer command executed by a second mouse button when said displaying software program is embodied to receive an input from a mouse having a first

and second button(a timeout was created and program execution transferred to mouse emulation mode. Now an application command, such as a "file" command 108, could be activated by recognizing the series of points as a "file" command generated by a mouse-pointing device and sent to the application program (column 6, lines 42-48)) wherein the separate computer command is stored in the AUI (advanced user interface) and wherein (a computer module within the stylus or finger-based operating system extension (AUI) to differentiate between touch input signals intended to emulate a mouse command, such as a mouse button down, mouse move, or a mouse button up, and those touch input signals which are to be considered a gesture or character (column 6, lines 49-55) ad the mouse pointing device inherently has first and second buttons.

Regarding claim 21, Zetts teaches a portable electronic device (a flat panel display to form what is known as a “touch workpad” (column 3, lines 67 and 68)) wherein a flat panel display is light or portable comprising:

a touch sensitive display (touch overlay Fig.1 (16));

a display software program (software application window, Fig.3 (100) embodied on a computer readable medium (RAM, Fig.2B (80)) for displaying a graphical image at said touch sensitive display that is responsive to inputs at only a first active portion (tool bar Options, Fig.3 (104)) and non-responsive to a second inactive portion of the touch sensitive display when said graphical image is displayed (gesture, Fig.3 (106));

a separate computer command embodied on a computer readable medium (AUI is stored in RAM 80 with the operating system 81 and application programs 82 (column 6, lines 13 and 14)); and

computer instructions embodied on a computer readable medium for receiving an input character at the second inactive portion of said touch sensitive display (The touch sensor 16 generates a series of interrupts to a device driver for the touch workpad at 110 which passes a set of input signals to the AUI corresponding to the set of points or strokes in the circle at 112 (column 7, lines 44-47)) wherein the touch sensor 16 is not active because it is not an icon. (See Fig.4);

for comparing said input character to a stored command character that is associated with the separate computer command (the stroke is sent to a character recognition unit or gesture recognition unit for processing at 128 (column 7, lines 65-67)) wherein a character recognition unit is included in the Advanced User interface (AUI) which stores defined character so that the received input from the touch sensor Fig.1 (16) can be compared to. (See Fig.4); and

for causing the separate corresponding computer command to be executed if said input character matches said command character (If the input stroke has been recognized by the gesture recognition unit as a circle gesture, the AUI passes the circle gesture signal to the appropriate computer module 132 (column 8, lines 3-6)). (See Fig.4).

Regarding claim 23, a method of operating a touch sensitive display interface of a computer (the workpad cable 28 provides power to the workpad 10 as well as display

signals to operate the LCD 18 and also touch signals to operate the overlay in both finger touch and stylus modes. In addition, the cable 28 is also the conduit to the computer for the measurement of the signal strength received by the stylus 20 and of the frequency change due to changes in capacitance of a finger touch (column 4, lines 52-59)) comprising:

receiving an input at a touch sensitive display screen display (The touch sensor 16 generates a series of interrupts to a device driver for the touch workpad at 110 which passes a set of input signals to the AUI corresponding to the set of points or strokes in the circle at 112 (column 7, lines 44-47)). (See Fig.4);

interpret the input into a character that is previously stored in a memory (AUI is stored in RAM 80 with the operating system 81 and application programs 82. In a preferred embodiment, this invention improves AUI by allowing it more efficiently to distinguish between mouse commands and gesture or character data, Fig.2B (80);

store a starting coordinate of the input (Now an application command, such as a "file" command 108, could be activated by recognizing the series of points as a "file" command generated by a mouse-pointing device and sent to the application program (column 6, lines 44-48));

map the character to a command (If the input stroke has been recognized by the gesture recognition unit as a circle gesture, the AUI passes the circle gesture signal to the appropriate computer module 132 (column 8, lines 3-6)) wherein a character recognition unit is included in the Advanced User interface (AUI) which stores defined

character so that the received input from the touch sensor Fig.1 (16) can be compared to. (See Fig.4); and

execute the command using the stored starting coordinate as a parameter of the command (If the input stroke has been recognized by the gesture recognition unit as a circle gesture, the AUI passes the circle gesture signal to the appropriate computer module 132 (column 8, lines 3-6)). (See Fig.4).

Regarding claim 24, Zetts teaches the character comprises at least one of a Unicode character and a ASCII character (the software application code (RAM) Fig.2B (80) wherein an ASCII character is inherently included).

Regarding claim 25, Zetts teaches a method of operating a touch sensitive display interface (the workpad cable 28 provides power to the workpad 10 as well as display signals to operate the LCD 18 and also touch signals to operate the overlay in both finger touch and stylus modes. In addition, the cable 28 is also the conduit to the computer for the measurement of the signal strength received by the stylus 20 and of the frequency change due to changes in capacitance of a finger touch (column 4, lines 52-59)) comprising:

displaying a graphical image on at least a portion of a touch sensitive display (work space area Fig.3 (102) wherein a plurality of graphical images like menu selections, file command, icons or windows, which a user can most easily select by using a mouse or a finger are displayed;

sensing a set of contiguous pixels on at least the portion of the touch-sensitive that are highlighted by a user (touchdown and file command, Fig.3 (108) wherein a plurality of points forming a gesture are sensing by the touch workpad Fig.1 (16));

analyzing the set of contiguous pixels to determine a two-dimensional input pattern (the stroke is sent to a character recognition unit or gesture recognition unit for processing at 128 (column 7, lines 65-67));

correlating the input pattern to one of at least two command characters stored in a memory (a computer module within the stylus or finger-based operating system extension (AUI) to differentiate between touch input signals intended to emulate a mouse command, such as a mouse button down, mouse move, or a mouse button up, and those touch input signals which are to be considered a gesture or character (column 6, lines 49-55));

executing a command associated with the one command character (the user does not stop at a particular point for the specified time delay period and instead lifts off the touch screen, the AUI selects the set of input points generated by the pointing device (the stroke) as candidate points for character or gesture recognition (column 7, lines 16-21)); and

changing the display in accordance with the command (The action bar 104 contains a single selectable menu item, "options." If the user touches down with the pointing device (e.g., stylus, finger, etc.) on the "options" menu item, a pulldown menu will appear to allow him to select one of many available options (column 6, lines 23-27) wherein depending on the choice of the user when he/she touches the pulldown menu,

the display can be changed.

Regarding claim 26, Zetts teaches changing the display comprises displaying a menu over only a portion of the graphical image (The action bar 104 contains a single selectable menu item, "options." If the user touches down with the pointing device (e.g., stylus, finger, etc.) on the "options" menu item, a pulldown menu will appear to allow him to select one of many available options (see Fig.3)).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 12 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,404,458 (Zetts) in view of US Patent No. 5,537,608 (Beatty et al.).

Regarding claim 12 and 22, Zetts teaches all the claimed limitations with the exception of providing a mobile station.

However, Beatty et al. teach personal communicator 10 integrates the architecture of a complete personal computer with a modem and an RF transceiver into a portable, lightweight package which fits in the user's hand or pocket (column 3, lines 61-64).

Thus, it would obvious to a person of ordinary skill in the art at the time the invention was made to utilize the personal communicator as taught by Beatty et al. in the touch workpad disclosed by Zetts because this would provide a radio frequency communication.

**Conclusion**

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean Lesperance whose telephone number is (571) 272-7692. The examiner can normally be reached on from Monday to Friday between 10:OOAM and 6:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Hjerpe, can be reached on (571) 272-7691.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

**or faxed to**:

(571) 273-8300 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Jean Lesperance

Art Unit 2629

Date 3/16/2007